

LITTER MADE OF SEVERAL PERFORATED PANS FOR CATS OR OTHER DOMESTIC ANIMALS

5 Field of the invention

The present invention relates to a multilevel litter made of several perforated pans for temporary storage of organic wastes of domestic animals.

10 Background

Litters for cats or other domestic animals are well know in the art. A wide choice of litters is also offered to consumers as alternatives to the conventional litter, which normally consists of a simple pan filled with absorbent material. One of the
15 objectives of these alternative litters is to make them reusable in order to lower the costs associated with the replacement of the same.

Recently, new litters have become available, which litters are devised to considerably facilitate the task of the consumers when it is time to get rid of the
20 organic wastes out of it.

For example, US Patent no. 4,217,857 (Geddie) discloses a litter for domestic animals. This litter has three pans insertable into each other as to form a stack. The stack comprises an inferior pan, an intermediate pan, as well as a superior
25 pan. The inferior and intermediate pans are interchangeable. The superior pan has a multitude of small openings so that, when the superior pan is removed from the stack, only the absorbing material flows through these small openings, while the organic wastes solidified and absorbed by the absorbing material remain trapped into the superior pan. The consumer only has to empty the content of the superior
30 pan into a garbage can. To reuse the litter, the consumer must remove the intermediate pan containing the absorbing material, now emptied from any organic wastes, from the inferior pan. Then, he must insert the superior pan into the

inferior pan and decant the content of the intermediate pan into the superior pan. Once the intermediate pan is empty, it is placed at the bottom of the stack. One problem with this litter is that the consumer has to decant the absorbing material from one pan to another in a precise order. Moreover, as it was mentioned previously, only the inferior and intermediate pans are interchangeable, since these are the only pans which are identical.

Another example of a litter for cats or other domestic animals is proposed in US Patent no. 4,716,853 in the name of the Applicant (Scotto D'Aniello). As compared to the litter of GEDDIE, the litter of SCOTTO D'ANIELLO is a multi-functional disposable litter. In addition to a pan comprising a row of absorbent material, it also comprises a cover that can be mounted onto the top of the pan. The cover comprises various bowls that may be filled up with water and/or food. This litter is an example of "all-in-one" litter that can be found on the market. However, this structure does not make it easy to clean.

Summary of the invention

A first object of the present invention is to overcome the previously mentioned drawbacks.

More precisely, the first object of the invention is to provide a reusable litter that can be easily and efficiently cleaned of organic wastes.

Another object of the present invention is to provide a litter of a "ready-to-use" type, which comprises an absorbing material in it.

In accordance with the invention, these objects are achieved with a litter for cats or other domestic animals comprising a least three pans insertable into each other to form a stack. The pans are interchangeable within the stack. Moreover, each pan comprises a floor and a peripheral wall forming together an open container capable of receiving a layer of an absorbent material for absorbing and solidifying

organic wastes. The litter also comprises a plurality of openings made within the floor of each pan. The openings of each pan are located at positions different from the openings of the other pans in such a manner that the openings of each pair of adjacent pans be vertically out of line. Each opening is size to retain the organic wastes while allowing the absorbing material to past theretrough.

An advantage of this litter is that it is not necessary to use a shovel to pick up and dispose of the organic wastes.

Another advantage of this litter is that it is not necessary to transfer the absorbing material from one pan to another after filtration, like in the case of the litter disclosed by GEDDIE.

The invention and its advantages will be better understood in view of the following description of two preferred embodiments of the invention, these embodiments being given as non limitative examples and their description being made with reference to the accompanying drawings.

Brief description of the drawings

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Figure 1 is a perspective view of a litter according to a first preferred embodiment of the invention.

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Figure 2 is an exploded perspective view from a section of the litter of figure 1.

Figures 3a, b and c are top views of the pans of the litter shown in figures 1 and 2, showing the openings located at different positions within the pans.

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Figure 4 is a transversal cross-section view of the litter shown in the previous figures.

Figure 5 is a view similar to the one of figure 4, illustrating how the litter can be used.

Figures 6a, b and c are partial top views of the pans of a litter according to a
5 second preferred embodiment of the invention.

Figure 7 is a broken transversal cross-section view of the litter made of the pans shown in figures 6a, b and c.

10 Detailed description of preferred embodiments of the invention

As illustrated in the accompanying drawings, the litter according to the present invention comprises three pans 2 sized to be easily insertable into each other. Each pan has a floor 4 and a peripheral wall 6. The floor 4 and the peripheral
15 wall 6 form together an open container 8 capable of receiving a layer of an absorbing material 22 for absorbing and solidifying organic wastes. The pans are advantageously moulded in plastic to reduce the weight of the litter. However, other materials could be used as alternatives.

20 Preferably, each pan 2 has an upper rim 10 opposite to the floor 4 to prevent infiltration of the absorbing material 22 between the peripheral wall 6 when the pans 2 are inserted into each other. These rims 10 also facilitate the transportation of the litter by means of grippers 12 introduced into the rims 10 for holding together the rims 10 of all the pans 2. Other means could however be used, such
25 as pliers (not illustrated) exercising a pressure onto the peripheral wall 6 so that the pans 2 cannot be released from each other easily. A detachable band made of gluing material located all around the rim 10 could also be used as attaching means.

30 Advantageously, the pans 2 have vertical grooves 14 for facilitating their introduction into each other. A predetermined configuration of these grooves 14 ensures a proper orientation of the pans 2 into each other.

Advantageously also, each of the pans 2 has an handle 16 projecting outwardly from a portion of its peripheral wall 6 in order to facilitate handling of the pan 2 by a user. These handles 16 of the pans 2 are devised to be aligned when the pans 2 are inserted into each other in proper position. The handles 16 are then acting as positioning indicators.

As illustrated in figures 2 and 4, the absorbing material 22 is located within the open top container 8.

Each pan 2 has a plurality of openings 20 made within its floor 4. The openings 20 of each pan 2 are located at positions different from the openings 20 of the other pans 2 so that the openings 20 of each pair of adjacent pans 2 are vertically out of line. An example of the position of the openings 20 is shown in figures 3a, to 3c. The openings 20 are sized to retain the organic wastes while allowing the absorbing material 22 to pass therethrough.

In the first preferred embodiment illustrated in figures 1 to 5, cavities 18 are made in the floor 4 of each pan 2. The cavities 18 of each pan are aligned vertically with the cavities 18 made in the other pans when they are inserted into each other. The above mentioned openings 20 are located in the bottom of some of these cavities 18. These cavities 18 prevent the absorbing material 22 from getting in the openings 20 of the adjacent inferior pan 2. For the purpose of simplicity, each pan 2 shown on figures 1 to 5 has being illustrated with twelve (12) rows of six (6) cavities 18. In practice, the pans 2 having a standard size will have more cavities 18. Thus, for example, the pans 2 could each have twenty-four (24) to twenty-eight (28) rows of a dozen cavities 18.

Figure 5 illustrates one way of using this litter. When organic wastes are solidified and absorbed by the absorbing material 22, the user can remove the upper pan 2 of the stack. This pan 2 contains the absorbing material 22. The user then shakes gently the pan 2 on top of the other pan 2 so that only the absorbing material 22,

free of wastes, is filtrated by the openings 20. Therefore, the absorbing material 22 fills the next inferior open container 8. After all the absorbing material 22, free of wastes, has been filtrated, the organic wastes can be thrown in a garbage can. To reuse the litter, the same pan 2 has to be placed at the bottom of the stack. Since
5 the openings 20 of one pan 2 are not vertically aligned with those of the others, there is no risk of absorbing material 22 leaking outside the litter.

According to the second preferred embodiment of the invention illustrated in figures 6a, 6b, 6c, and 7, the openings 20 are located within the cavities 18 to
10 facilitate the outflow of the absorbing material 22. These openings 20 are in the shape of slim rectangular slots that are located in such a manner that the openings 20 of each pair of adjacent pans 2 be out of line vertically. Only the absorbing material 22 can get through these openings 20. The cavities 18 are preferably of rectangular shape and have a width of $\frac{3}{4}$ " and a length of 1". For
15 example, the pan 2 may have a dozen cavities 18 by row and between twenty-four (24) to twenty-eight (28) rows. The openings 20 of a same pan 2 are all located at the same position within their cavities 18, while being all located at different positions from the openings 20 of the cavities 18 of the two other pans 2. Such
20 eliminates the risk of leakage of the absorbing material 22 between two adjacent pans 2 when the same are inserted into each other. Leakage of the absorbing material 22 outside of the litter is thus prevented.

The litter of the present invention can be sold with or without the absorbing material 22. In the latter case, the user will have to buy the absorbing material 22.
25 However, if the absorbing material 22 is included with the litter when the user buys it, the absorbing material can be located within the upper container 8 which is then covered with a film 24 (see figures 1 and 2) to prevent damage while transporting the litter.

30 Of course, it should be evident to those skilled in the art that numerous changes and modifications can be made to the preferred embodiments of the invention

disclosed hereinabove and illustrated in the accompanying drawings without departing from the essence of this invention.